

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-32. (cancelled)

33. (Previously Presented) A balloon catheter, comprising

a) a multilayer balloon comprising a polymeric first layer having a deposited plasma polymerized acrylate or fragmented acrylate polymer film covalently bonded to at least a section of a first surface of the first layer, and a polymeric second layer, the second layer being bonded to the section of the first surface of the first layer which has the plasma polymerized functionality covalently bonded thereto so that the plasma polymerized functionality is between the first and second layers, and the plasma polymerized film having a thickness of about 10 to about 150 nanometers; and

b) an elongated shaft having an inflation lumen, and bonded to the balloon, so that an interior of the balloon is in fluid communication with the inflation lumen.

34. (Previously Presented) The balloon catheter of claim 33 wherein the first layer is an outer layer of the balloon and the second layer is an inner layer of the balloon, so that the first surface of the first layer which has the plasma polymerized film covalently bonded thereto is an inner surface of the first layer.

35. (Previously presented) The balloon catheter of claim 33 wherein the first layer is fusion bonded to the second layer.

36. (Previously Presented) The balloon catheter of claim 33 including a layer of adhesive between the plasma polymerized film and the second layer, so that the first layer is adhesively bonded to the second layer.

37. (cancelled)

38. (Previously Presented) The balloon catheter of claim 34 wherein the balloon has proximal and distal skirt sections bonded to the shaft, and the inner surface of the first layer along at least a portion of the proximal and distal skirt sections of the balloon has the plasma polymerized film bonded thereto and bonded to the shaft, so that the plasma polymerized film located along the portion of the proximal and distal skirt sections is between the first layer and the shaft.

39. (Previously presented) The balloon catheter of claim 33 wherein the first layer is formed at least in part of a polymeric material selected from the group consisting of a fluoropolymer, polytetrafluoroethylene, expanded polytetrafluoroethylene, and ultra high molecular weight polyethylene.

40. (Previously presented) The balloon catheter of claim 33 wherein the first layer is formed at least in part of a polymeric material having a node and fibril microstructure.

41. (Previously presented) The balloon catheter of claim 33 wherein the plasma polymerized film has a thickness of about 50 nm to about 125 nm.

42. (Previously Presented) A balloon catheter, comprising  
a) a multilayer balloon comprising a polymeric first layer having a plasma polymerized functionality covalently bonded to at least a section of a first surface of the first layer, and a polymeric second layer, the second layer being bonded to the section of the first surface of the first layer which has the plasma polymerized

functionality covalently bonded thereto so that the plasma polymerized functionality is between the first and second layers, and the plasma polymerized functionality forming a film having a thickness of about 10 to about 150 nanometers and being plasma polymerized acrylic acid; and

b) an elongated shaft having an inflation lumen, and bonded to the balloon, so that an interior of the balloon is in fluid communication with the inflation lumen.

43. (Previously Presented) A medical device, comprising a polymeric substrate with a film of plasma polymerized acrylic acid which has a thickness of about 10 to about 150 nm and which is covalently bonded to at least a section thereof.

44. (Previously Presented) The medical device of claim 43 wherein the plasma polymerized film is covalently bonded to an outer surface of the substrate.

45. (Previously Presented) The medical device of claim 43 wherein the thickness of the film of plasma polymerized acrylic acid is about 50 to about 150 nm.

46. (Previously Presented) The medical device of claim 43 including an agent or polymeric layer bonded to the section of the substrate which has the plasma polymerized acrylic acid film covalently bonded thereto, so that the plasma polymerized acrylic acid film is between the substrate and the agent or polymeric layer.

47. (Previously Presented) The medical device of claim 46 including a layer of adhesive between the plasma polymerized acrylic acid film and the agent or polymeric layer.

48. (Previously Presented) The medical device of claim 43 wherein the substrate is formed of a polymer selected from the group consisting of a polyethylene and a fluoropolymer.